CHR Analytics Roundtable 2023

by Emma Scher and Kelly McGuire

Executive Summary

Participants in the 2023 Cornell Analytics Roundtable focused on the changes that will be wrought by the rapid expansion of artificial intelligence applications, such as Open AI and ChatGPT. These industry leaders expect that sophisticated analytics can assist in providing improved operations that better reflect guests' desires. Although challenges remain, the potential for applying AI to improve operations is considerable. Chief among the challenges are rapidly changing guest expectations and uneven staffing. Both public and private artificial intelligence applications can support hotels' responses to guests' changing expectations. Public applications are generally less costly, but the most effective approaches will involve privately developed AI applications. Through all of this, hotel operators and brands must develop new levels of trust so they can work together to apply analytics throughout their operations.

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She recently served as senior vice president, revenue management, distribution, and direct marketing for MGM Resorts International, where she oversaw strategy and execution of revenue management, distribution, and direct marketing for MGM's Las Vegas resorts. Prior to joining MGM, Kelly served as vice president, advanced analytics at Wyndham Destination Networks, where she led a team of scientists and developers that built custom analytical solutions for Wyndham's vacation rental business, as well as the RCI exchange. Prior to that she was the executive director for hospitality and travel at SAS. She holds an MMH and a PhD from the Cornell School of Hotel Administration.
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Every year, hospitality analytics leaders gather at the Cornell Center for Hospitality Research's Analytics Roundtable to discuss the latest technical innovations, review analytics breakthroughs, and brainstorm solutions to industry challenges. Between the 2022 and 2023 roundtables, the sudden entry of complex generative artificial intelligence capabilities drove significant shifts in hoteliers' perspectives on data in general, the value and role of customer feedback, and how analytics can better support operations. Now that applications like Chat GPT and Open AI have made creating solutions that employ AI available even to non-technical users, hospitality analytics professionals need to reconsider their approach to technology applications. These shifts were reflected in the following 2023 Roundtable discussions:

(1) Overcoming Challenges to Achieve a Better Customer Experience through Analytics;

(2) Responsibly Bringing Generative AI Capabilities to Organizations; and

(3) Maximizing the Value of Analytics for Owners and Brands by Aligning Interests.

Analytics and artificial intelligence played a substantial role in all three discussions, as actionable insights were shared regarding how to effectively leverage analytics and AI in hospitality with specific consideration of the unique aspects of the hospitality industry, such as ownership structure and legacy system usage.

Overcoming Challenges to Achieve a Better Customer Experience through Analytics

Customer experience has always been a defining focus in hospitality. However, the struggle to meet guests' service experience expectations during the restrictions caused by the Covid-19 pandemic brought about an unprecedented decline in customer satisfac-tion, evident in both first-party and third-party reviews. Despite a substantial recovery, the hospitality industry is still struggling to make up lost ground in guest sat-isfaction. Our roundtable discussion highlighted two primary contributors to this decline over the past two years: operational challenges and shifting customer expectations.

Operational challenges. Participants identified several common issues that led to dissatisfied customers, including limited transparency regarding company policies, reduced housekeeping services, and the closure of food and beverage units. Significant factors contributing to these service gaps were the inconsistency, uneven reliability, and limited experience of many staff members—factors which were driven first by pandemic layoffs and then by staffing shortages even as the pandemic eased. High employee turnover, job shifts due to increased working demands, and the influx of inexperienced employees have further exacerbated these operational challenges. This has resulted in a loss of institutional knowledge, employees needing to assume roles beyond their level of experience, and chronic understaffing.

Guest expectations. Hotels adapted to deliver service both during the pandemic and in the turbulent environment that followed. However, hoteliers found that customer expectations had evolved during this time. Several attendees spoke of changing customer expectations, which they observed had occurred largely due to the seamless integration of personalization into guests' experiences in other industries—especially as those industries experienced rapid acceleration of digital-enabled interactions. Personalization in this instance entails crafting distinctive digital and physical experiences tailored to individual preferences and behavior throughout the entire customer journey, from initial dream to post-stay follow ups. Handled correctly, such personalization creates and maintains loyalty.

Customer preferences have typically varied across demographics, market segments, and hotel tiers, but the pandemic seems to have magnified those differences. Flexibility in offering specific and differentiated experiences to guests representing each segment or travel purpose is crucial for improving overall sentiment. While the hotel industry has long discussed the concept of personalization and customization, practical implementation has lagged. Although there have been digital transformations such as digital keys and digital check-in, the pace of change has largely not kept up with evolving customer expectations. Roundtable participants suggested several opportunities to accelerate digital transformation to continue to improve customer experience.

Participants expressed concerns about the safety and security of using artificial intelligence.

Leveraging Analytics and Personalization

To stay attuned to customer expectations, needs, and preferences, hotels are now realizing the benefits of using dynamic data sources alongside traditional guest satisfaction surveys. Such sources could include call logs from call centers, tracking check-in and check-out behavior, and collecting online interaction data through cookies. These diverse data sources offer a window into the specific pain points that lead to customer dissatisfaction. The ability to slice and dice data at various levels of granularity—accounting for factors such as property, brand, segment, portfolio, and region—has become essential to deriving actionable insights. By embracing broader data sources at greater levels of detail, and by employing advanced analytical approaches, hotels can pinpoint dissatisfiers as specific as a lack of towels or discontinuing hot breakfast. Despite these possibilities, however, significant challenges remain in achieving this level of access and use of data.

While the concept of data best practices is sound in theory, implementation can be challenging, particularly when hotel brands and properties employ a variety of diverse systems—particularly legacy systems. Such diversity often results in data that cannot be effectively

> # Owners and brands must work together to build trust, so they can make the most effective use of AI.

linked or standardized. "The industry has been talking about personalization and customization for years, but there has not been a lot of action seen," states one attendee. Furthermore, the absence of a centralized reporting standard leads to significant disparities in measurement methodologies, even within a single hotel portfolio. While standardizing these practices holds the promise of unlocking significant benefits, attendees highlighted significant obstacles, including the effort required to capture and access data, and the challenge of quantifying the incremental value of these efforts. In this regard, standardization is a time-consuming and difficult process.

Addressing the gaps in customer experience in the hotel industry requires a thorough understanding of both operational challenges and shifting customer expectations. Attendees agreed that going beyond guest satisfaction surveys and gathering data from all guest touchpoints would provide a more holistic perspective on guest expectations and operational friction points. Such information could be used to design targeted programs to improve overall satisfaction and enhance business performance. However, to fully realize the potential of customer-centric strategies, the challenges presesented by data management and standardization must be overcome.

What Is AI and What Do We Mean by ChatGPT?

Artificial Intelligence, particularly Generative AI like ChatGPT, has emerged as a potentially powerful tool in many cases. As AI-driven tools become more accessible to average users, new avenues for both connecting better with guests and improving employee efficiency and effectiveness are opened. One attendee who works in AI solutions shared that "generative AI can create content across various formats, including text, voice, video, and images, which previously required human expertise." In practical terms, AI can play a pivotal role in analyzing sentiments from reviews, identifying trends in customer behavior, and recommending changes to boost revenue. It can support marketing departments in creating content for promotions or make call center employees more effective through providing real-time "next best offer" recommendations or ongoing feedback on improvement opportunities. However, attendees agreed that the challenge lies in deploying these AI use cases in a scalable and secure manner.

A repeated concern throughout the day highlighted risks associated with the new GenAI, specifically, accuracy and security. The widely used, publicly available GPTs limit businesses' control and visibility over input data and generated output, leading to concerns about accuracy and reliability. Moreover, any company information that is fed into these public models can become available to future users.

Attendees agreed that while all eyes are on public offerings, the true opportunities for businesses involve deploying private Generative AI solutions that are specific to a company and hosted only within their controlled environment. While there is additional cost associated with these solutions, they can be tailored to specific business needs, and designed to make use of a company's confidential data, while also protecting the confidentiality of those data. Even with this additional layer of security, however, attendees expressed concerns about bias in AI models, the ability to meet brand standards, and the precision required to resolve individual business problems. Despite these challenges, several participants shared anecdotes of successful applications, where a business controlled the quality and usage of AI-generated content. The general conclusion was that this new generation of AI solutions can support significant benefits, but companies need to dedicate resources to ensure that they pick the right use cases and understand and mitigate the risks.

Aligning Interests: Maximizing the Value of Analytics for Owners and Brands

Embracing data analytics and AI trends excites corporate leadership, but stakeholder buy-in can be challenging. The hotel industry's distinct operating model adds complexity to improving systems and analytics, as brands generally choose investments to be made that then must be funded by owners and delivered by management companies. Given the hotel industry's corporate structure, AI challenges that the industry faces include **(1)** data silos; **(2)** implementing new systems; **(3)** gaining goal alignment, and **(4)** building trust.

Data siloes. The hotel industry has long struggled with data siloes. Some are due to systems that don't easily integrate with each other, but others exist intentionally, due to the brands' fears of owners misusing data or owners' fears of brands increasing fees based on profitability details. Some owners have been able to build cross-brand databases which are valuable for benchmarking performance across their portfolio, but smaller owners don't have access to this level of insight. Such data gaps mean that value will be left on the table.

Brand-level decisions, hotel-level execution. Progress is often stalled by the scenario we just mentioned, in which brands make major decisions, such as adopting new systems, while owners and operators need to fund, implement, and derive value from these systems. Brands want to innovate and move business initiatives forward. Owners are understandably reluctant to spend resources on technology investments without a clear understanding of the benefit to them and how they will achieve that benefit. For their part, operators are hesitant to add new processes to already overloaded employees without recognizing efficiencies elsewhere.

Gaining alignment. A major challenge for technology vendors is that they must first convince brand leadership of the value of system innovations for hotels and then secure operator buy-in. Even if both brands and operators will see value from the investment, the value to the brand is frequently different than the value to an owner. At best, it can be difficult for vendor partners to understand and communicate the full picture; at worst, the brands' interests are in direct conflict with the owners' interests.

Greater use of AI tools should open avenues for connecting better with guests and improving employee efficiency and effectiveness.

Overcoming distrust. Technology investments in hospitality have a checkered past, including a long history of difficult implementations and unclear value propositions. To build trust, brands must be able to clearly communicate benefits and to share risks with operators. Owners need to be educated in the latest technology opportunities and challenges so they can engage in meaningful dialogue with the brands regarding implementation. Leading with the value proposition of data sharing, analytics and centralization can allow for stakeholders to collaborate to drive mutual value to both brands and owners.

In conclusion, addressing challenges in customer experience, understanding AI, and aligning interests among stakeholders are critical for hoteliers to thrive in this dynamic landscape. To achieve these goals, continued investment in data, technology, and people will be required. It's crucially important that hotel companies stay informed on the latest evolutions in analytics, especially AI, no matter their size or remit. Forums like this roundtable are a good way to stay connected and keep the conversation going. ∎

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